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JUL 0 4 2004

PAGE 01

OFFICIAL

Dear Sir/Madam (Fax #703-872-9306):

RE: Patent Filing 09/916,701, "Method for Shifting the Bandgap Energy of A Quantum Well Layer"

I called the paralegal of your "Office for Petition Examiner" and spoke to Mr. Tom Hawkins (703-305-8380) and he advised me to Fax you our document with respect to the above matter. Please pass the enclosed Fax document (total 26 pages) along to them for review.

We have been awaiting the award of the above patent that had been allowed on March14, 2003. The patent office probably mistakenly abandoned the patent on ground that it did not receive our final set of drawings (See attached Document page 6) while we had actually sent them on time.

A petition to "withdraw holding of abandonment" was sent to the patent office to correct the error. This was sent by our patent lawyer Alan Limbach of Gray Cary on 9 September 03 (page 1 of enclosed Document) with the enclosure of a return postcard and document to show our timely mailing date of 22 July 03 (page 8 of enclosed Document). The letter showed our timely submittal and possible Patent Office error.

We have not heard from the Patent Office since and are eager to see the award of the patent. Please let me know if the patent will be awarded soon. In case there is any question, I can be contacted at 224-588-0958 (cell) or my assistant Dr. Jing Ma at 847-208-3918 at any time. In any case, I will call Tom Hawkins in a week to check with him. Thanks.

Best regards,
Seng-Tiong Ho

120 Picardy Lane Wheeling, IL 60090 224-588-0958

3 July 04



RECEIVED CENTRAL FAX CENTER

JUL 0 4 2004



Atty Dckt Number: 2103248-990140

- 1 -

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

BOON-SIEW OOI et al.

Application No. 09/916,701

Filed: July 26, 2001

For:

METHOD OF SHIFTING THE

BANDGAP ENERGY OF A QUANTUM

WELL LAYER

Commissioner for Patents
PO Box 1450

Mail Stop: Issue Fee Alexandria, VA 22313-1450 Group Art Unit: 2812

Examiner: SAVITRI MULPURI

PETITION TO WITHDRAW HOLDING OF ABANDONMENT

2000 University Avenue, East Palo Alto, CA 94303-2248 (650) 833-2000

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to MS Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22213-1450, on September 9, 2003.

GRAY CARA WARE & FREIDHIRICH

Linda West

Date: 9/9/03

الاعرج

Sir:

Applicants hereby petition to withdraw the holding of abandonment in the present application, as evidenced in the Notice of Abandonment mailed September 2, 2003 (copy submitted herewith).

According to the Notice of Abandonment, the present application was abandoned due to Applicants' alleged failure to timely file new formal drawings as required in the Notice of Allowability, namely that no new formal drawings were received.

Applicants submit that new formal drawings were indeed timely submitted in the present case. Submitted herewith is a true and correct copy of Applicant's response to the Notice of Allowance, which included:

- 1. Transmittal Form
- 2. PTOL 85B Fee Transmittal





Atty Dckt Number: 2103248-990140

-2-

<u>PATENT</u>

- 3. Fee Transmittal.
- 4. Submission of Formal Drawings transmittal.
- 5. 13 Sheets of Formal Drawings.
- 6. Check for \$950.
- 7. Certificate of First Class Mailing
- 8. Return Postcard.

Also submitted herewith is a true and correct copy of the stamped postcard receipt, which is prima facie evidence under MPEP 503 of receipt in the USPTO of all items listed thereon, including the 13 sheets of formal drawings.

Therefore, it is respectfully requested that the abandonment of the present application be withdrawn.

Respectfully submitted,

GRAY CARY WARE & FREIDENRICH

Dated: 51. 9 2003

Alan A. Limbach

Reg. No. 39,749

Attorneys for Applicant(s)

TELEPHONE: (650) 833-2433 (direct line)

TELECOPY: (650) 833-2001

Gray Cary\EM\7149888.I 2103248-990140





AAL



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER POR PATENTS PO. Box 1450 Alexandra Vagues 2233-1450

| APPLICATION NO. | PILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------|----------------------------------|-------------------------|---------------------|------------------|
| 09/916,701 | 07/26/2001 | Boon-Siew Ooi | 021040-000800US | 9267 |
| ****** | 990 09/02/2003 WARE & FREIDEN | EXAMINER | | |
| 2000 UNIVERS | SITY AVENUE D, CA 94303-2248 | | MULPURI, | SAVITRI |
| E I A E O I E O I | 0,0 , | | ART UNIT | PAPER NUMBER |
| | | | 2812 | PH-12 |
| | | DATE MAILED: 09/02/2003 | <u>-</u> | |

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED

PESSIVE

SEP = 8 2003

GRAY CARY

Mall Stop Issue Fee Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Docket No. 2103248-990140

Mailed: September /, U.S. Serial No. 09/916,701 Filed July 26, 2001

Enclosed are:

Transmittal Cover Sheet;

Petition to Withdraw Holding on Abandonment with Attachments; and

. 3) Return postcard.

, 2103248-990140 Phosistor Technologies

AAL/Imw

Mail Stop Issue Fee Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailed: September 7, U.S. Serial No. 09/916,701 Filed July 26, 2001 2003

Docket No. 2103248-990140

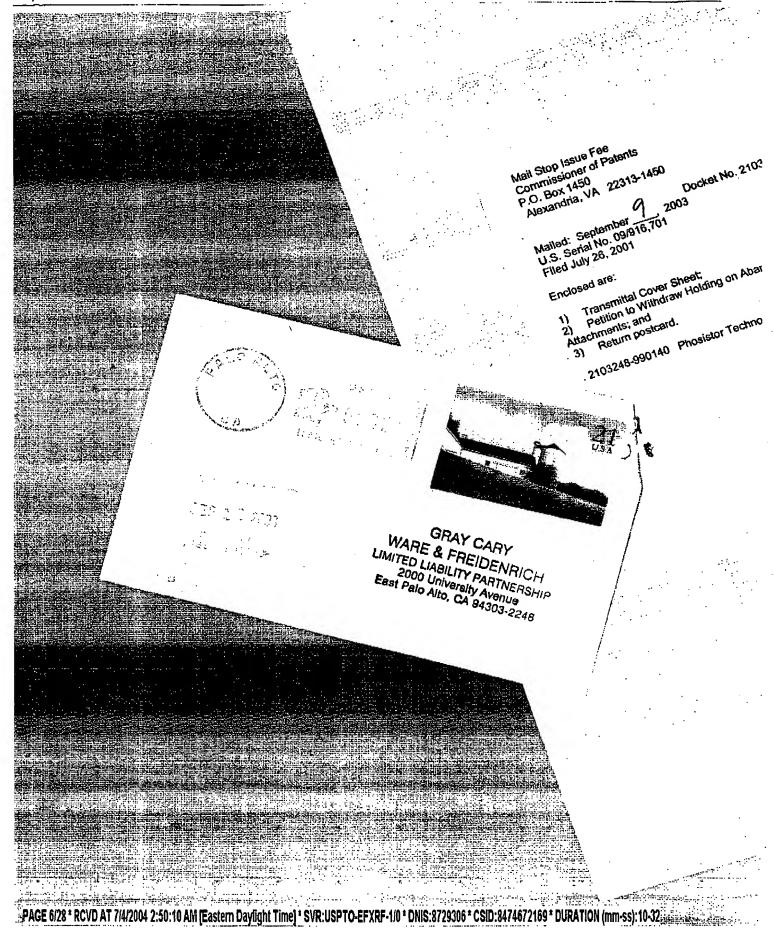
Enclosed are:

Transmittal Cover Sheet; Petition to Withdraw Holding on Abandonment Attended Attachments; and

Return postcard.

. 2103248-990140 Phosistor Technologies

AAL/Imw





Application Number

PTO/SB/21 (08-00)

09/916,701

| First Named Inventor Boon-Siew Ool et al. | TRANSMITTA | A. | | Filing Date | | July 26, 2001 | | |
|--|--|---------------------------------------|-------------------|---------------------------|----------------|--|--|--|
| Control Cont | | · - | | First Named Inventor | | Boon-Siew Ool et al. | | |
| Examiner Name Savitri Mulpurl Atterney Docket Number 2103248-990140 Send Submission Atterney Docket Number Atterney Docket Number 2103248-990140 Submission Atterney Docket Docket Number Appeal Communication to Board of Appeal Submission to Board of Appeal Submission to Board of Appeal Submission to Board of Appeal Communication to Board of Appeal Communication to Group Appeal Communicatio | | fter initial filing) | | Group Art Unit | | 2812 | | |
| Fee Transmittal Form | | | | Examiner Name | | Savitri Mulpurl | | |
| Fee Transmittal Form | Total Number of Pages in This Subm | | Attorney Docket N | umber | 2103248-990140 | | | |
| Fee Transmittal Form | | NCL OSURE | S (check | all that apply) | | | | |
| Fee attached | | | | | | | | |
| Amendment/Repty | | /for ar | | | | | | |
| After Final Petition to Convert to a Provisional Propriate P | Fee attached | ∐ Draw | ring(s) | | of. | Appeals and interferences | | |
| Application Affidavits/declaration(s) Affidavits/declaration(s) Affidavits/declaration(s) Affidavits/declaration(s) Affidavits/declaration(s) Change of Correspondence Address Affidavits/declaration(s) Extension of Time Request Request Request for Refund CD, Number of CD(s) Remarks Correlated Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 **Customer Number or Bar Code Lebel** The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Aduplicate copy of this sheet is enclosed. Respectfully submitted, GRAY CARY WARE & FREIDENRICH ILP Detect September 9, 2003 By: Attorneys for Applicant(s) CERTIFICATE OF MANLING Inereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this CERTIFICATE OF MANLING Inereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this CERTIFICATE OF MANLING Inereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this CERTIFICATE OF MANLING Date September 9, 2003 | Amendment/Reply | Licen | rsing-related | l Papers | LI AP | peal Communication to Group opeal Notice, Brief, Reply Brief) | | |
| Change of Correspondence Address Extension of Time Request | After Final | Appti | cation | | D Pr | oprietary information | | |
| Extension of Time Request Terminal Disclaimer (please identify below): Express Abandonment Request Request for Refund Petition to Withdraw Holding of Abandonment Information Disclosure Statement Remarks Response to Nissing Parts/ Incomplete Application Resp | Affidavits/declaration(s) | | | | ☐ St | atus Letter | | |
| Express Abandonment Request Request for Refund Abandonment | Extension of Time Request | ☐ Term | ninat Disclair | ner | A (p) | ease identify below): | | |
| Information Disclosure Statement Certified Copy of Priority Document(s) | Express Abandonment Request | Requ | uest for Refu | and . | | | | |
| Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 X Customer Number or Bar Code Lebel 263.79 The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. A duplicate copy of this sheet is enclosed. Respectfully submitted, GRAY CARY WARE & FREIDENRICH ILP GRAY CARY WARE & FREIDENRICH ILP By: Albomay Name Alban & Limbach Rep, No. 39,749 Altomeys for Applicant(s) I hereby certify that this correspondence is being deposited with the United States Postal Service with eufficient postage as first class main an envelope addregged to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this dide: September 2003 Typed or printed name Linda Jurphy West Gray Cary EM/7149934.1 | Information Disclosure Statement | ☐ CD, | Number of C | CD(s) | | | | |
| Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 **Customer Number or Bar Code Lebel** The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. Respectfully submitted, GRAY CARY WARE & FREIDENRICH LLP By: Attorney's Name Attan A. Limbach Reg. No. 39,749 Attorney's for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this signature Gray Cary\EM/1149934.1 | | Remarks | | | | | | |
| Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 **Customer Number or Bar Code Label** The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. A duplicate copy of this sheet is enclosed. Respectfully submitted, GRAY CARY WARE & FREIDENRICH ILP Dated: September 9, 2003 By: Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Sentce with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Murphy West Signature Oray Cary(EM\(7\)149934.1 | Certifled Copy of Priority Document(s) | | | | | | | |
| The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. Respectfully submitted, GRAY CARY WARE & FREIDENRICH LLP Dated: September 9, 2003 By: Attorney Name And Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addregged to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linds Murphy West Gray CaryteMi/149934.1 | | 1 | | | | | | |
| The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. A duplicate copy of this sheet is enclosed. Respectfully submitted, GRAY CARY WARE & FREIDENRICH ILP Dated: September 9, 2003 By: Attorney Name Attan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Jourphy West Gray Cary/EM/7149934.1 | | | | | | | | |
| Deposit Account No. A duplicate copy of this sheet is enclosed. Respectfully submitted, GRAY CARY WARE & FREIDENRICH ILP By: Attorney Name Atan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Murphy West Signature Oray Cary EM(7) 149934.1 | X Customer Number or Bar Code Label | | | Attach har code label hen | <u>ن</u> م | · | | |
| Respectfully submitted, GRAY CARY WARE & FREIDENRICH LLP By: Attorney Name Attan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mailing an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Murphy West Signature Oray Cary EM(7149934.) | | zed to charge ar | ny additional | fees which may be req | ulred, or o | redit any overpayment to | | |
| Dated: September 9, 2003 By: Attorney Name Atan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Aurphy West Signature Oray Cary/EM/7149934.] | Deposit Account No. | · · · · · · · · · · · · · · · · · · · | | | | | | |
| Dated: September 9, 2003 By: Attorney Name Attan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mains an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Jurphy West Signature Date September 9, 2003 | | | • | | | | | |
| Attorney Name Atan A. Limbach Reg. No. 39,749 Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Jurphy West Signature Date September 9, 2003 | | | GRAY | CARY WARE & FREE | DENRICH | I LLP | | |
| Attorneys for Applicant(s) CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Murphy West Signature Oray Cary\EM\7149934.1 | Dated: September 9, 2003 | | Bv: | al h | B | e | | |
| CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Jurphy West Signature Date September 9, 2003 | and and the same of the same o | _ | <i></i> | | | mbach | | |
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| in an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this date: September 2003 Typed or printed name Linda Murphy West Signature Date September 9, 2003 Oray Cary\EM\7149934.1 | | | - | | | | | |
| Typed or printed name Linda Murphy West Signature Date September 9, 2003 Oray Cary\EM\7149934.1 | I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this | | | | | | | |
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| Gray Cary\EM\7149934.1 / | | 2 /M. | 1/2) | AX D | ate | September 9, 2003 | | |
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The reason(s) below:







UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

CONTACT PERSON IS:

| APPLICATION NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NO. |
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| 091916,701 | | | • |
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| (A proper response to condition for allowance | a final rejection consists on; a Notice of Appeal; or th | nly of: a timely filed amendment e filing of a continuing applicatio | which places the application in under 37 CFR 1.62 (FWC). |
| No response has been | received. | | |
| Applicant's failure to timely of the Notice of Allowance. | | within the statutory period of the | ree months from the mailing date |
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| interest, or all of the applic | · · | by the attorney or agent of recor | u, uic assignes of the cime |
| The letter of express aban | | | n a representative capacity under |
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| | • | | ABANDONMENT |





Respond to the Notice of Abandonment by one of the following:

Petition To Withdraw Holding of Abandonment (See MPEP 711.03(c) I) and 37 CFR § 1.181) No fee required

Where an applicant contends that the application is not in fact abandoned (e.g., there is disagreement as to the sufficiency of the reply, or as to controlling dates), a petition under 37 CFR § 1.181(a) requesting withdrawal of the holding of abandonment is the appropriate course of action. Any petition under 37 CFR § 1.181, to withdraw the holding of abandonment not filed within 2 months of the mail date of a Notice of Abandonment may be dismissed as untimely under 37 CFR § 1.181(f). In order for a petition to be granted, the evidence must be sufficient according to one of the following standards:

- 37 CFR § 1.8(b) Certificate of Mailing
- 37 CFR § 1.10 "Express Mail" mailing
- MPEP 503 Postcard Receipt as Prima Facie Evidence

Petition To Withdraw Holding Of Abandonment should be addressed as follows:

By mail:

Commissioner For Patents, P.O. Box 1450, Mail Stop: Issue Fee, Alexandria, VA

22313-1450

By facsimile:

703-305-8755 or 703-305-4372

Petition To Withdraw Holding Of Abandonment Based On Failure To Receive Office No fee required (See MPEP 711.03(c) II).

Where an applicant contends that the original Notice of Allowance and Issue Fee Due was never received. If adequately supported, the Office may grant the petition and remail the Office action. The showing required establishing non-receipt of an Office communication must include a statement from the practitioner stating that the Office communication was not received and attesting to the fact that a search of the file jacket and docket records indicates that the Office communication was not received. A copy of the docket record where the nonreceived Office would have been entered had it been received and docketed must be attached to and referenced in practitioner's statement.

Pention should be addressed to the Technology Center handling the application as follows:

By mail:

Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450

(Mark attention of a particular office or individual)

By facsimile:

Technology Center numbers posted at http://www.uspto.gov/september1/faxnotice.htm

Petition To Revive An Abandoned Application (See MPEP 711.03(c) III)

Where there is no dispute as to whether an application is abandoned (e.g. the applicant's contentions merely involve the cause of abandonment) a petition under 37 CFR § 1.137 (a) unavoidable or (b) unintentionally (accompanied by the appropriate petition fee) is necessary to revive the abandoned application.

Petitions under 37 CFR § 1.137 should be addressed to the Office of Petitions as follows:

By mail;

Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450

By hand;

Crystal Plaza 4, Rm. 3C23, 2201 Clark Place, Arlington, VA

By facsimile:

703-308-6916

Petition For Revival Of An Application For Pateut Abandoned Unavoidably Under 37 CFR § 1.137(a) and Unintentionally Under 37 CFR 1.137(b), forms available at USPTO website - http://www.uspto.gov

Note: Abandonment takes place by operation of law for failure to reply to an Office action or timely pay the issue fee, not by operation of the mailing of a Notice of Abandonment.

Mail Stop: Issue Fee Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailing Date: July 22, 2003 U.S. Serial No.: 09/916,701 Filing Date: July 26, 2001

METHOD FOR SHIFTING THE BANDGAP ENERGY OF A

QUANTUM WELL LAYER

Enclosed are:

1) Transmittal Form (in duplicate);

- PTOL 85B Fee Transmittal (in duplicate);
 Fee Transmittal FY 2003 (in duplicate);
- 4) Submission of Formal Drawings Transmittal (in duplicate);
- 5) 13 Shoets of Formal Drawings;
- 5) Check in the amount of \$ 950.00;
- 6) Certificate of First Class Mailing; and

7) Return Postcard.

2103248-990140 (Phosistor)

22260/AAL/kI

Mail Stop: Issue Fee Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailing Date: July 22, 2003 U.S. Serial No.: 09/916,701 Filing Date: July 26, 2001 Title:

METHOD FOR SHEFTING THE BANDGAP ENERGY OF A QUANTUM WELL LAYER

Enclosed are:

- 1) Transmittel Form (in duplicate);
- 2) PTOL 85B Fee Transmittal (in duplicate); 3) Fee Transmittal FY 2003 (in duplicate);
- 4) Submission of Formal Drawings Transmittal (in dup.
- 5) 13 Sheets of Forms | Drawings;
- 5) Check in the amount of \$ 950.00: 6) Certificate of First Class Mailing, and
- 7) Return Postcard.

2103248-990140 (Phosistor)



22260/AAL/ki

the date shown below.

Typed or printed

Signature

Kathleen LaBrie





PTO/SB/05 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 09/916,701 **Application Number** July 26, 2001 TRANSMITTAL Filing Date **Boon Siew Ooi FORM** First Named Inventor 2812 Art Unit (to be used for all correspondence after initial filing) Savitri Mulpuri Examiner 2103248-990140 21 Attorney Docket Number Total Number of Pages In This Submission (Check all that apply) ENCLOSURES After Allowance Communication to Group M Drawing(s) Formal - 13 sheets M Fee Transmittal Form (in duplicate Appeal Communication to Board of Appeals and Interferences Licensing-related Papers X Fee Attached -\$950.00 Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Petition Amendment/Reply Proprietary Information Petition to Convert to a After Final Provisional Application Status Letter Power of Attorney, Revocation Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer **Extension of Time Request** Identify below): PTOL-85 Part B (in duplicate) Request for Refund Express Abandonment Request Letter to Draftsperson (in duplicate) Return Postcard CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority The Commissioner is hereby authorized to charge any additional fees which may Document(s) be required, or credit any overpayment to Deposit Account No. 07-1896. A duplicate copy of this sheet is enclosed. Response to Missing Parts/ Incomplete Application Customer Number 26379 Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Alan A. Limbach, Reg. No. 39,749 Gray Cary Ware & Freidenrich LLP Individual Signature July 22, 2003 Date CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimilie transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 2231-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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July 22, 2003

Date

PTO/SB/05 (05-03) Def for use through 04/30/2003. OMB 0651-0032
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| FEE TRANS | FEE TRANSMITTAL | | 09/916,701 | |
| | Filing Date July 26, 2001 First Named Inventor Boon siew Ooi | | | |
| for FY 20 | or FY 2003 | | Boon siew Ooi | |
| Effective 01/01/2003. Patent fees are | subject to annual revision. | Examiner Name | Savitri Mulpuri | |
| Applicant claims small entity status. S | plicant claims small entity status. See 37 CFR 1.27 | | July 26, 2001 Boon siew Ooi Savitri Mulpuri 2812 | |
| TOTAL AMOUNT OF PAYMENT | (\$) 950.00 | Art Unit Attorney Docket No. | 2103248-990140 | |
| <u> </u> | | | | |

| METHOD OF PAYMENT (check all that apply) FEE CALCULATION (continued) | | | | | | | | |
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| Deposit Account 07-1896 | Code | | Code | (\$) | | | reg raid | |
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| Occount Gray Cary Ware & Freidenrich LLP | 1052 | 50 | 2052 | 25 | cover sheet | Mitheria mang ree or | | |
| Name The Director is authorized to: (check all that apply) | 1053 | 130 | 1053 | 130 | Non-English specifi | cation | | |
| Charge fee(s) indicated below Credit any overpayments | 1812 | 2,520 | 1812 | 2,520 | | for ex perte reexamination | | |
| Charge any additional fee(s) during the pendency of this application | 1804 | 920* | 1804 | 920* | Requesting publication | ation of SIR prior to | | |
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| to the above-identified deposit account. | 1251 | 110 | 2251 | 55 | Examiner action — Extension for reply | within first month | | |
| FEE CALCULATION | 125 | | | 205 | - * | within second month | | |
| 1. BASIC FILING FEE | | | 2253 | | | within third month | · | |
| Large Entity Small Entity Fee Fee Fee Fee Fee Description Fee Paid | 125 | | * | | / · · | | <u> </u> | |
| Code (\$) Code (\$) | 125 | 1,450 | 2254 | 725 | • | within fourth month | | |
| 1001 750 2001 375 Utility filing fee | 125 | 5 1,970 | 2259 | 5 985 | Extension for reply | within fifth month | | |
| 1002 330 2002 165 Design filing fee | 140 | 320 | 2401 | 160 | Notice of Appeal | | | |
| 1003 520 2003 260 Plant filing fee | 140 | 320 | 2402 | 160 | Filing a brief in su | pport of an appeal | | |
| 1004 750 2004 375 Reissue filing fee | 140 | 3 280 | 2403 | 3 140 | Request for oral h | earing | | |
| 1005 160 2005 80 Provisional filing fee | 145 | 1,510 | 1451 | 1.51 | O Pelition to institute | a public use proceeding | | |
| SUBTOTAL(1) (\$) 0.00 | 1 145 | 2 110 | 245 | 2 55 | Petition to revive | - unavoidable | | |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE | 745 | _ | 2453 | 850 | Petition to revive | - unintentional | | |
| Fee from Extra Claims below Fee Pail | 150 | | 250 | | | reistue) | 650.00 | |
| Total Claims -20* = X = | ייין ד | | 1 | 2 235 | • | | | |
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| Large Entity) Small Entity | - 180 | 7 50 | 180 | 7 50 | Processing fee us | oder 37 CFR 1.17(q) | | |
| Fee Fee Fee Fee Description Code (\$) | 180 | • | 180 | • | | ormation Disclosure Strnt | | |
| 1202 18 | 802 | 1 40 | 802 | 1 40 | | atent assignment per amber of properties) | | |
| 2202 9 Casinis in excess of 20 | 180 | 9 750 | 280 | 9 375 | (37 CFR 1.129(a) | in after final rejection | | |
| 1201 64 2201 42 Independent claims in excess of 3 1203 280 2203 140 Multiple dependent claim, if not pa | 181 | 0 750 | 281 | 0 376 | For each addition | al invention to be | | |
| 1204 84 2204 42 "Relissue Independent claims | | | | 4 97 | examined (37 CF | | | |
| over original patent | 180 | | 280 | | | inued Examination (RCE) | 1 | |
| 1205 18 2205 9 "Reissue dates in excess of 20 and over original patent | 180 | | 180 | | of a design applic | ation | | |
| SUBTOTAL (2) (5) 0.0 | g on | er feé (\$ | pecify) | Pub | ication. Fee (\$300 |))) | 300.00 | |
| "or number previously paid, if greater; For Relasues, see above | J1 | duced b | y Basic | Filing | Fee Paid S | UBTOTAL (3) (\$) | 950.00 | |
| SUBMITTED BY | | | | | | (Complete (if applicable) | | |
| Name (Print/Type) Alan A. Limbach | | Regist/ (Attorn | | | 39,749 | Telephone 650-833-2 | 2433 | |

| SUBMITTED BY | · | | *************************************** | (Complete (| if applicable) |
|-------------------|-----------------|----------------------------------|---|-------------|----------------|
| Name (Print/Type) | Alan A. Limbach | Registration No. (Attorney/Agent | 39,749 | Telephone | 650-833-2433 |
| Signature | alla. Ance | | | Date | July 22, 2003 |

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PAGE 12/28 * RCVD AT 7/4/2004 2:50:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:8474672169 * DURATION (mm-ss):10-32





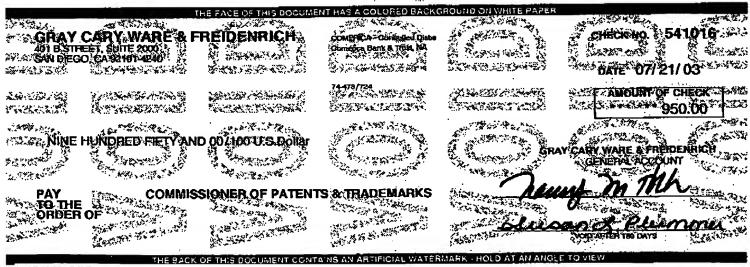
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| APPLICATION NO. | FILING DATE | FIRS | T NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | |
| 09/916,701 | 07/26/2001 | <u></u> | Boon-Siew Ooi | 021040-000800US | 9267 | | |
| | | THE BANDGAP ENER | GY OF A QUANTUM WELL LA | YER | | | |
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| APPLN. TYPE | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE | | |
| nonprovisional | YES | \$1300 | \$300 | \$1600 | 07/22/2003 | | |
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| MULPURI, | SAVITRI | 2812 | 438-022000 | | | | |
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-Attorney Docket No. 2103248-990140

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Boon-Siew Ooi

Group Art Unit: 2812

Serial No.: 09/916,701

Examiner: Savitri Mulpuri

Filed: July 26, 2001

Gray Cary Ware & Freidenrich LLP

2000 University Avenue

East Palo Alto, CA 94303-2248

Title: METHOD FOR SHIFTING THE BANDGAP

ENERGY OF A QUANTUM WELL LAYER

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Dear Sir:

Applicant hereby submits thirteen (13) sheets of formal drawings in the above-identified patent application.

Please charge any fees for the submission of the formal drawings to Gray Cary Ware & Freidenrich LLP, deposit account <u>07-1896</u>. A duplicate copy of this transmittal is enclosed if charge of additional fees is necessary.

GRAY CARY WARE & FREIDENRICH LLP

Dated July 22, 2003

Alan A. Limbach

Customer Number

Reg. No. 39,749

26379

Attorney for Applicant(s)

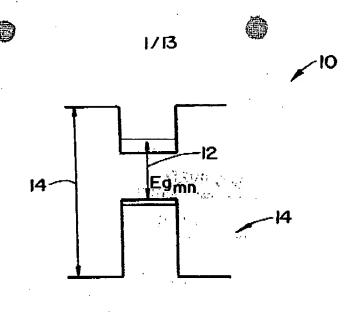


FIG. IA.

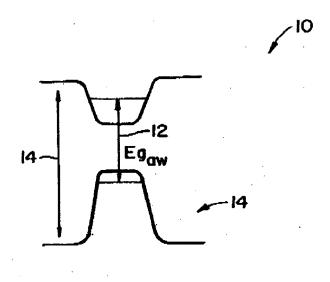


FIG. IB.





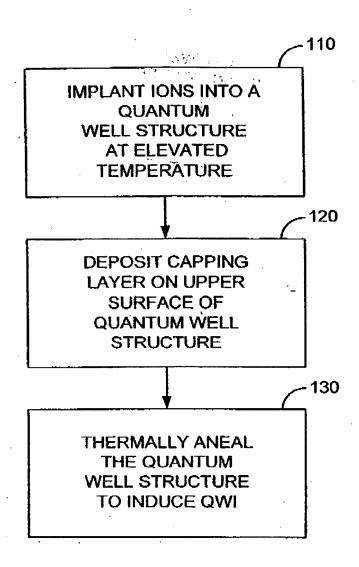


FIG. 2.





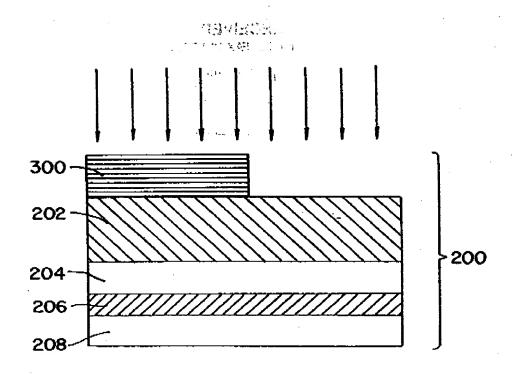


FIG. 3.

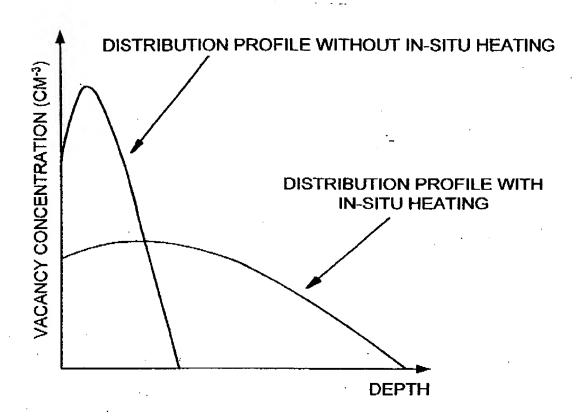


FIG. 4.

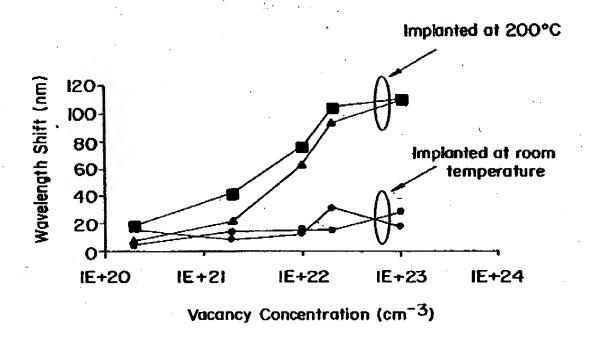


FIG. 5.

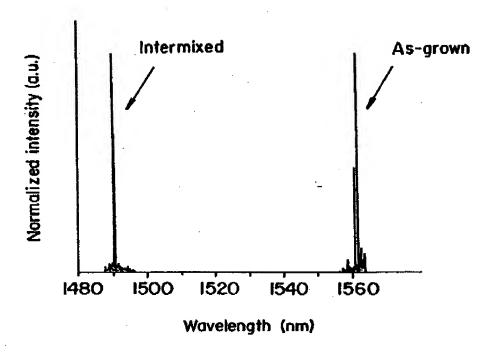


FIG. 6.

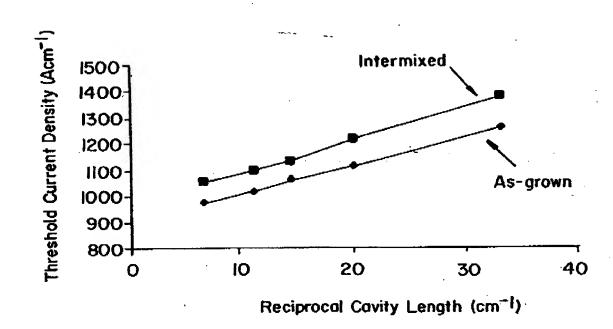


FIG. 7.

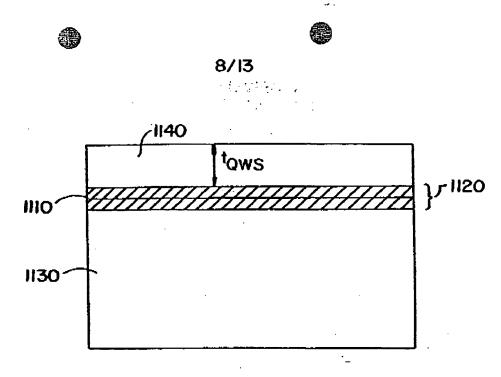
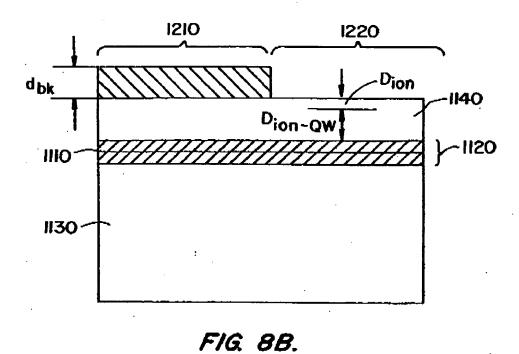
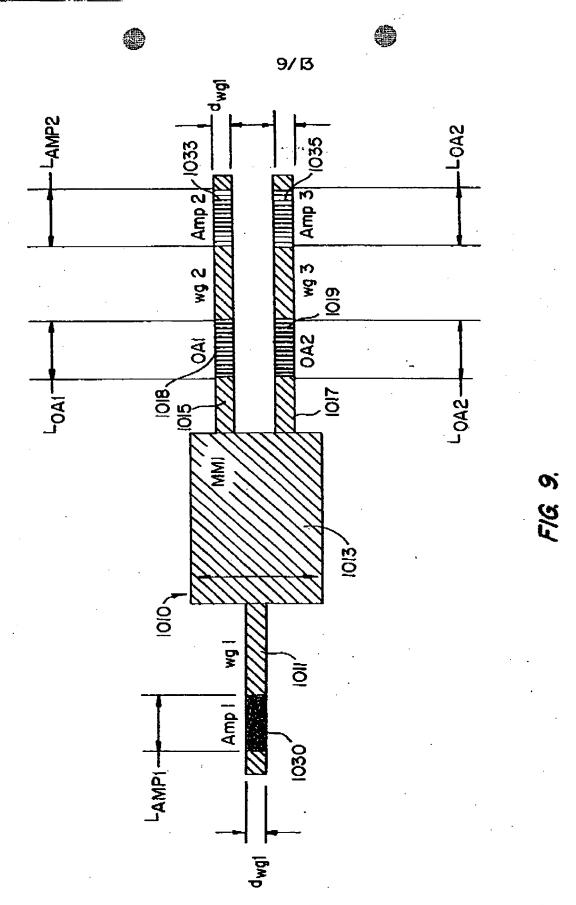


FIG. 8A.



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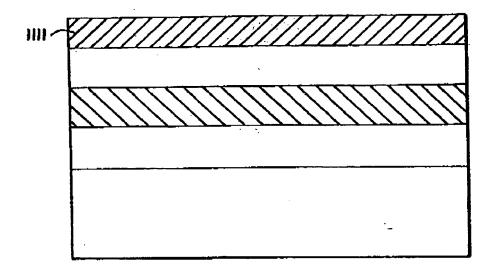


FIG. IOA.

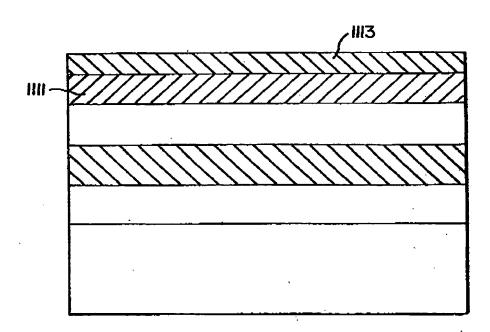


FIG. IOB.





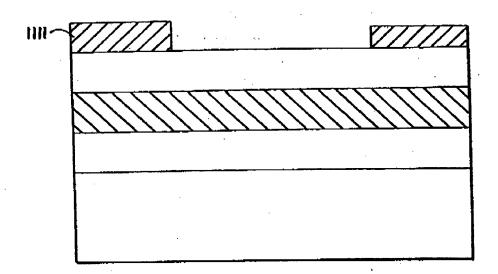


FIG. 10C.

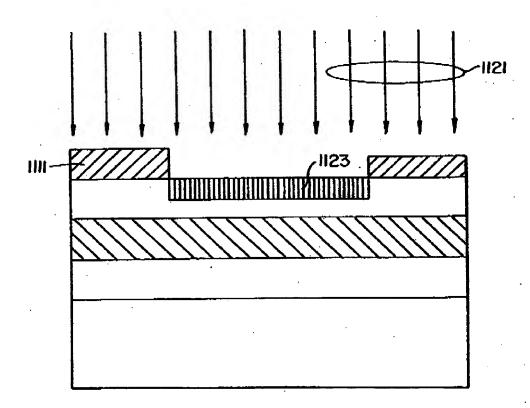


FIG. IOD.





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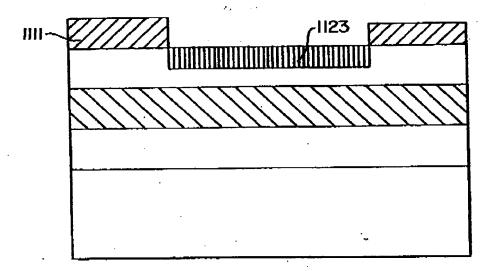


FIG. IOE.

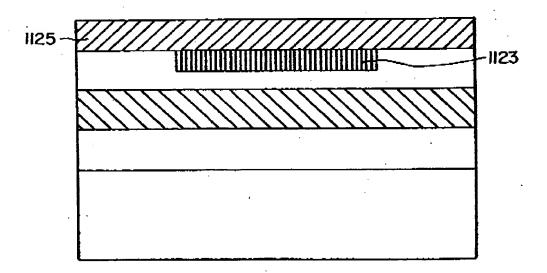


FIG. IOF.





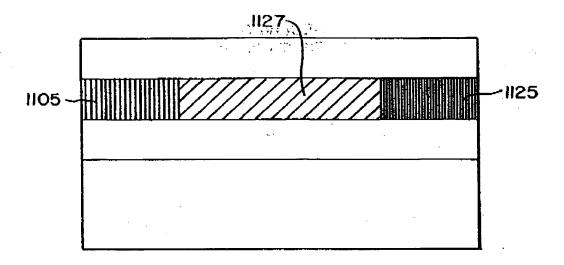


FIG. IOG.

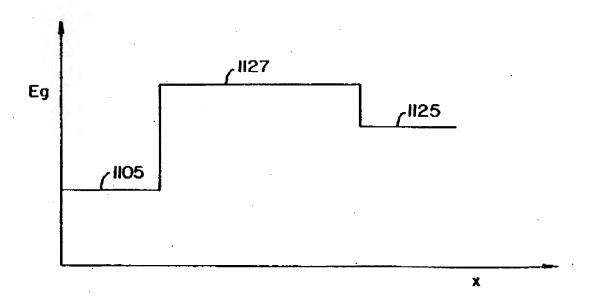


FIG. IOH.